Report of the Council to the Seventy-third Annual General Meeting of the Society.

The following table shows the progress and present state of the Society:—

	Compounders	Annual Subscribers	Mathematical Society	Total Fellows	Associates	Patron	Grand Total
December 31, 1891	247	367	3	617	47	1	665
Since elected	+2	+35	...	...	+4	...	...
Deceased	−7	−11	−2	...	−3	...	...
Resigned	...	−11	...	...	...	...	...
Names erased	...	− 5	...	...	...	...	...
Removals	+2	− 2	...	...	...	...	...
December 31, 1892	244	373	1	618	48	1	667

Dr. Common's Account as Treasurer of the Royal

RECEIPTS.

	£	s.	d.	£	s.	d.
Balances, 1892 January 1:—						
At Bankers', on current account	243	17	6			
,, on deposit	200	0	0			
In hand of Assistant Secretary on account of Turnor and Horrox Fund	7	19	3			
In hand of Assistant Secretary on Petty Cash Account	0	7	10			
				452	4	7
Dividends on £13,200 Consols, 2¾ per cent. ...	353	18	8			
,, on £650 New 2½-per-cent. Stock. ...	11	19	4			
,, on £1,250 Metropolitan 3 per cent. Stock	36	11	4			
Interest on Money on deposit at Bankers'	0	2	1			
				402	11	5
Received on account of Subscriptions:—						
Arrears	167	8	0			
262 Annual Contributions for 1892	550	4	0			
5 ,, ,, 1893	10	10	0			
30 Admission Fees	63	0	0			
28 First Contributions	50	8	0			
				841	10	0
4 Composition Fees				84	0	0
Sales of Publications:—						
At Williams & Norgate's, 1891	25	12	2			
At Society's Rooms, 1892	43	18	9			
				69	10	11
				£1,849	16	11

Audited and found correct, 1893, January 10.

THOMAS LEWIS,
HAROLD SEWARD.

Astronomical Society, from 1892 *January* 1 *to December* 31.

EXPENDITURE.

	£	s.	d.	£	s.	d.
Assistant Secretary: Salary	250	0	0			
" " for assistance in editing Society's Publications ...	50	0	0			
				300	0	0
Income Tax and House Duty	10	10	0			
Fire Insurance	7	16	6			
				18	6	6
Printing, &c.	526	4	6			
Engraving and Lithography, &c.	20	7	4			
				546	11	10
Turnor and Horrox Fund: Purchases for Library	7	14	9			
Binding Books in Library	27	10	10			
				35	5	7
Lantern for Evening Meetings—Additional Apparatus, &c.	25	15	6			
Gas-fittings for Lantern	2	0	0			
Oxygen	0	13	6			
Lantern Attendant	4	0	0			
				32	9	0
Decorating	9	15	6			
Sundry Fittings and Repairs	13	16	6			
				23	12	0
Barometer				5	0	0
Copying Press	7	3	6			
Stationery and Office Expenses	15	9	0			
				22	12	6
House Expenses	57	1	6			
Wages	40	12	6			
Postage	68	3	2			
Carriage of Parcels	2	8	11			
Expenses of Meetings	21	18	4			
Coals and Gas	38	10	3			
Electric Light Expenses	1	3	8			
Rental of Wire for Time Signal, &c.	5	18	0			
Care of Fire-extinguishing Apparatus	1	10	11			
Sundries	5	7	5			
				242	14	8
Mrs. Jackson Gwilt's Annuity	8	19	0			
Lee and Janson Fund Grants	15	0	0			
				23	19	0
Purchase of £237 10 10 New 2½-per-cent. Stock at 93⅝, including Commission	222	14	5			
Purchase of £200 New 2½-per-cent. Stock, at 96¼, including Commission	192	15	6			
				415	9	11
Deductions on Cheques				0	4	0
Balances, 1892 December 31:—						
At Bankers', as per Pass Book	163	16	0			
Country Cheques not Credited till 1893 ...	8	8	0			
In hand of Assistant Secretary on account of Turnor and Horrox Fund	10	4	6			
In hand of Assistant Secretary on Petty Cash Account	1	3	5			
				183	11	11
				£1,849	16	11

Assets and Present Property of the Society, 1893 January 1.

	£ s. d.	£ s. d.
Balances in hand, December 31, 1892:—		
At Bankers', as per pass book	163 16 0	
Country Cheques not credited till 1893 ...	8 8 0	
In hand of Assistant Secretary on account of Turnor and Horrox Fund	10 4 6	
In hand of Assistant Secretary on Petty Cash Account	1 3 5	
		183 11 11
Due on account of Subscriptions:—		
1 Contribution of 5 years' standing	10 10 0	
10 Contributions of 3 ,, ...	63 0 0	
35 ,, 2 ,, ...	147 0 0	
46 ,, 1 ,, ...	96 12 0	
7 Admission Fees and 1st Contributions ...	22 1 0	
Other Amounts	7 7 0	
	346 10 0	
Less 5 Contributions paid in advance ...	10 10 0	
		336 0 0
Due from Messrs. Williams & Norgate on account of sales of Publications, 1892		37 11 6
Due from Messrs. Wesley & Son, from sale of old non-astronomical books		5 19 9
£13,200 $2\frac{3}{4}$-per-cent. Consols, including the Lee and Janson Fund, the Turnor Fund, the Horrox Memorial Fund, and Mrs. Jackson Gwilt's gift.		
£650 New $2\frac{1}{2}$-per-cent. Consols.		
£1,250 Metropolitan 3-per-cent. Stock.		
Astronomical and other Manuscripts, Books, Prints, and Instruments; Furniture, &c.		
Unsold Publications of the Society.		
4 Gold Medals.		

Trust Funds.

The Turnor Fund: A sum of £450 2¾-per-cent. Consols, the interest to be used in the purchase of books for the Library.

The Horrox Memorial Fund: A sum of £100 2¾-per-cent. Consols, the interest to be used in the purchase of books for the Library.

The Lee and Janson Fund: A sum of £323 16*s.* 3*d.* 2¾-per-cent. Consols, the interest to be given by the Council to the widow or orphan of any deceased Fellow or Associate of the Society who may stand in need of it.

Mrs. Jackson Gwilt's Gift: A sum of £300 2¾-per-cent. Consols, subject to an annuity to the donor, during her life, of £8 19*s.* per annum.

Report of the Auditors.

We have examined the Treasurer's accounts for the year 1892, and have found and certified the same to be correct. The cash in hand on December 31, 1892, including the balance at the bankers', &c., amounted to £183 11*s.* 11*d.*

The funded property of the Society has been increased by the purchase of £437 10*s.* 10*d.* New 2½-per-cent. stock.

The books, instruments, and other effects have been examined, and they appear to be in a satisfactory condition. Some instruments belonging to the Society appear to have been lent for a considerable number of years: we think it desirable that a renewed acknowledgment should in such cases be given for these.

We have laid on the table a list of the names of those Fellows who are in arrear for sums due at the last Annual General Meeting, with the amount due against each Fellow's name.

(Signed) THOMAS LEWIS,
HAROLD SEWARD.

Stock in hand of volumes of the *Memoirs*:—

Vol.	At Society's Rooms	At Williams & Norgate's	Vol.	At Society's Rooms	At William & Norgate's
I. Part 1	7	...	XXX.	156	...
I. Part 2	42	...	XXXI.	139	...
II. Part 1	54	...	XXXII.	151	...
II. Part 2	20	...	XXXIII.	160	1
III. Part 1	65	1	XXXIV.	162	3
III. Part 2	84	1	XXXV.	107	5
IV. Part 1	77	3	XXXVI.	195	8
IV. Part 2	90	3	XXXVII. Part 1	336	8
V.	102	3	XXXVII. Part 2	282	8
VI.	123	3	XXXVIII.	267	1
VII.	142	3	XXXIX. Part 1	236	1
VIII.	126	3	XXXIX. Part 2	241	3
IX.	133	3	XL.	258	1
X.	143	...	XLI.	406	1
XI.	152	...	XLII.	232	3
XII.	159	...	XLIII.	235	1
XIII.	159	...	XLIV.	214	1
XIV.	365	...	XLV.	246	...
XV.	137	...	XLVI.	227	1
XVI.	163	1	XLVII. Part 1	3	...
XVII.	146	1	XLVII. Part 2	18	...
XVIII.	143	1	XLVII. Part 3	2	...
XIX.	147	1	XLVII. Part 4	10	...
XX.	139	1	XLVII. Part 5	8	...
XXI. Part 1	312	...	XLVII. Part 6	9	...
XXI. Part 2	98	...	XLVII.	202	2
XXI. 1 & 2 (together)	59	1	XLVIII. Part 1	246	2
XXII.	161	1	XLVIII. Part 2	255	2
XXIII.	145	1	XLIX. Part 1	450	1
XXIV.	153	1	XLIX. Part 2	317	1
XXV.	163	...	L.	385	4
XXVI.	174	1	Index to *Memoirs*	638	1
XXVII.	421	1			
XXVIII.	380	1			
XXIX.	402	...			

Stock in hand of volumes of the *Monthly Notices* :—

Vol.	At Society's Rooms	At Williams & Norgate's	Vol.	At Society's Rooms	At Williams & Norgate's
I.	63	...	XXVIII.	71	...
II.	65	...	XXIX.	51	...
III.	...	...	XXX.	64	2
IV.	...	...	XXXI.	92	...
V.	...	...	XXXII.	115	5
VI.	50	...	XXXIII.	97	...
VII.	2	...	XXXIV.	75	1
VIII.	153	2	XXXV.	54	...
IX.	24	3	XXXVI.	30	1
X.	178	1	XXXVII.	37	3
XI.	184	...	XXXVIII.	100	2
XII.	106	2	XXXIX.	97	1
XIII.	178	2	XL.	110	3
XIV.	177	3	XLI.	110	5
XV.	169	2	XLII.	120	1
XVI.	154	1	XLIII.	116	2
XVII.	167	1	XLIV.	119	2
XVIII.	244	...	XLV.	121	...
XIX.	56	...	XLVI.	116	...
XX.	30	...	XLVII.	134	4
XXI.	17	...	XLVIII.	126	2
XXII.	33	...	XLIX.	120	10
XXIII.	19	...	L.	123	13
XXIV.	24	...	LI.	134	11
XXV.	15	...	LII.	124	15
XXVI.	11	...	Index ...	564	3
XXVII.	4	...			

LIBRARY CATALOGUE 570

In addition to the above volumes of the *Monthly Notices*, the Society has a considerable stock of separate numbers of nearly all the volumes. With the exception, however, of Vols. XXXVI. to LII., no complete volumes can be formed from the separate numbers in stock.

Instruments belonging to the Society.

No. 1. The *Harrison* clock.
,, 2. The *Owen* portable circles, by Jones.
,, 3. The *Beaufoy* circle.

No. 4. The *Beaufoy* transit instrument.
„ 5. The *Herschel* 7-foot telescope.
„ 6. The *Greig* universal instrument, by Reichenbach and Ertel. The transit telescope, by Utzschneider and Fraunhofer, of Munich.
„ 7. The *Smeaton* equatoreal.
„ 8. The *Cavendish* apparatus.
„ 9. The 7-foot Gregorian telescope (late Mr. Shearman's).
„ 10. The variation transit instrument (late Mr. Shearman's).
„ 11. The universal quadrat, by Abraham Sharp.
„ 12. The *Fuller* theodolite.
„ 13. The standard scale, by Troughton and Simms.
„ 14. The *Beaufoy* clock, No. 1.
„ 15. The *Beaufoy* clock, No. 2.
„ 16. The *Wollaston* telescope.
„ 17. The *Lee* circle.
„ 18. The *Sharpe* reflecting circle.
„ 19. The *Brisbane* circle.
„ 20. The *Baker* universal equatoreal.
„ 21. The *Reade* transit.
„ 22. The *Matthew* equatoreal, by Cooke.
„ 23. The *Matthew* transit instrument.
„ 24. The *South* transit instrument.
„ 25. A sextant, by Bird (formerly belonging to Captain Cook).
„ 26. A globe showing the precession of the equinoxes.
The *Sheepshanks* collection :—
„ 27. (1) 30-inch transit instrument, by Simms, with level and two iron stands.
„ 28. (2) 6-inch transit theodolite, with circles divided on silver; reading microscopes, both for altitude and azimuth; cross and siding levels; magnetic needle; plumb-line; portable clamping foot and tripod stand.
„ 29. (3) Equatorial stand and clock movement for $4\frac{6}{10}$-inch telescope (telescope lost); double-image micrometer; two wire micrometers; object-glass micrometer.
„ 30. (4) $3\frac{1}{4}$-inch achromatic telescope, with equatorial stand; double-image micrometer; one terrestrial and three astronomical eyepieces.
„ 31. (5) $2\frac{3}{4}$-inch achromatic telescope, with stand; one terrestrial and three astronomical eyepieces.
„ 33. (7) 2-foot navy telescope.
„ 34. (8) Transit instrument of 45 inches focal length, with iron stand and also Ys for fixing to stone piers; two axis levels.
„ 35. (9) Repeating theodolite, by Ertel, with folding tripod stand.

No. 36. (10) 8-inch pillar sextant, by Troughton, divided on platinum, with counterpoise stand and artificial horizon.

„ 37. (11) Portable zenith telescope and stand, $2\frac{3}{4}$-inch aperture and 26 inches focal length; 10-inch horizontal circle and 8-inch vertical circle, read to 10″ by two verniers to each circle.

„ 38. (12) 18-inch Borda repeating circle, by Troughton, $2\frac{1}{8}$-inch aperture and 24 inches focal length; the circles divided on silver, the horizontal circle being read by four verniers, and the vertical circle by three verniers, each to 10″.

„ 39. (13) 8-inch vertical repeating circle, with diagonal telescope, by Troughton and Simms; circle divided on silver, reading to 10″; a 5-inch circle at eye-end, reading to single minutes; horizontal circle 9 inches diameter in brass, reading to single minutes.

„ 40. (14) A set of surveying instruments, consisting of a 12-inch theodolite for horizontal angles only, reading to 10″; two sets of adjusting plates; tripod stand with enclosed telescope; heavy stand for theodolite; Y piece of level; two large and three small ground-glass bubbles divided; level collimator, object-glass $1\frac{5}{8}$-inch diameter and 16 inches focal length; micrometer eyepiece, comb, and wires; mercury bottle and trough.

„ 41. (15) Level collimator, with object-glass $1\frac{7}{8}$-inch diameter and 16 inches focal length; stand, rider-level, and fittings.

„ 42. (16) 10-inch reflecting circle by Troughton, reading by three verniers to 20″; counterpoise stand; artificial horizon, with mercury; two tripod stands.

„ 43. (17) Hassler's reflecting circle, by Troughton, with counterpoise stand.

„ 44. (18) 6-inch reflecting and repeating circle, by Troughton and Simms, contained in three boxes, two of which form stands. Circle divided on silver, reading to single minutes; two inside arcs divided to single degrees, 150 degrees on each side; artificial horizon and mercury.

„ 45. (19) 5-inch reflecting and repeating circle, by Lenoir, of Paris.

„ 46. (20) Reflecting circle, by Jecker, of Paris, 11 inches in diameter, with one vernier reading to 15″.

„ 47. (21) Box sextant; reflecting plane and level.

„ 48. (22) Prismatic compass, by Troughton and Simms.

„ 49. (23) Mountain barometer.

„ 50. (24) Prismatic compass, by Thomas Jones, mounted with a cylindrical lens.

No. 51. (25) Ordinary $4\frac{1}{2}$-inch compass with needle.
„ 52. (26) Dipping needle, by Robinson.
„ 53. (27) Compass needle, mounted for variation.
„ 54. (28) Magnetic intensity needle, by Meyerstein, of Göttingen; a strongly fitted brass box with heavy magnet; filar suspension.
„ 55. (29) Box of magnetic apparatus.
„ 56. (30) Hassler's reflecting circle, by Troughton; a $10\frac{1}{2}$-inch reflecting and repeating circle, with stand and counterpoise, divided on platinum with two movable and two fixed indices; four verniers reading to 10″.
„ 57. (31) Box sextant and glass plane artificial horizon, by Troughton and Simms.
„ 58. (32) Plane $2\frac{3}{8}$-inch speculum, artificial horizon, and stand.
„ 59. (33) $2\frac{1}{2}$-inch circular level horizon, by Dollond.
„ 60. (34) Artificial horizon, roof, and trough; the trough $8\frac{1}{4}$ by $4\frac{1}{2}$ inches; tripod stand.
„ 61. (35) Set of drawing instruments, consisting of 6-inch circular protractor and common protractor, T-square; one beam compass.
„ 62. (36) A pantograph.
„ 63. (37) A noddy.
„ 64. (38) A small Galilean telescope with object-glass of rock crystal.
„ 65. (39) Five levels.
„ 66. (40) 18-inch celestial globe.
„ 67. (41) Varley stand for telescope.
„ 69. (43) Telescope, with object-glass of rock crystal.
„ 71. Portable altazimuth tripod.
„ 72. Four polarimeters.
„ 74. Registering spectroscope, with one large prism.
„ 76. Two five-prism direct-vision spectroscopes.
„ 78. $9\frac{1}{4}$-inch silvered-glass reflector and stand, by Browning.
„ 79. Spectroscope.
„ 80. A small box, containing three square-headed Nicol's prisms; two Babinet's compensators; two double-image prisms; three Savarts; one positive eyepiece, with Nicol's prism; one dark wedge.
„ 81. A back-staff, or Davis' quadrant.
„ 82. A nocturnal or star dial.
„ 83. An early non-achromatic telescope, of about 3 feet focal length, in oak tube, by Samuel Scatliffe, London.
„ 84. A Hollis observing chair.
„ 85. Double-image micrometer, by Troughton and Simms.
„ 86. $4\frac{1}{2}$-inch Gregorian reflecting telescope, by Short, with altazimuth stand and 6-inch altitude and azimuth circles and two eyepieces.

No. 87. $3\frac{1}{4}$-inch Gregorian reflecting telescope with wooden tripod stand.

„ 88. Pendulum, with 5-foot brass suspension rod, working on knife-edges, by Thomas Jones.

„ 89. A Rhabdological Abacus. A contrivance invented by Mr. H. Goodwyn, consisting of a box filled with compartments, in which are square rods covered with numbers, which can be arranged so as to facilitate the labour of multiplying high numbers.

„ 90. An Arabic celestial globe of bronze, $5\frac{3}{4}$ inches in diameter.

„ 91. Astronomical time watchcase, by Professor Chevallier.

„ 92. 2-foot protractor, with two movable arms, and vernier.

„ 93. Beam compass, in box.

„ 94. 2-foot navigation scale.

„ 95. Stand for testing measures of length.

„ 96. Artificial planet and star, for testing the measurement of a fixed distance at different position-angles.

„ 97. 12-cell Leclanché battery.

„ 98. 2-foot 6-inch navy telescope, with object-glass $2\frac{1}{2}$ inches, by Cooke, with portable wooden tripod stand.

„ 99. 12-inch transit instrument, by Fayrer and Son, with level and portable stand.

„ 100. 9-inch transit instrument, with level and iron stand.

„ 101. Small equatorial sight instrument, by G. Adams, London.

„ 102. Sun-dial, by Troughton.

„ 103. Sun-dial, by Casella.

„ 104. Sun-dial.

„ 105. Box sextant, by Troughton and Simms.

„ 106. Prismatic compass, by Schmalcalder, London.

„ 107. Compass, by C. Earle, Melbourne.

„ 108. Prismatic compass, by Negretti and Zambra.

„ 109. Dipleidoscope, by E. Dent.

„ 110. Abney level, by Elliott.

„ 111. Pocket spectroscope, by Browning.

„ 112. Universal sun-dial.

„ 113. Double sextant, by Jones.

„ 114. Two models, illustrating the effects of circular motions.

„ 115. A cometarium.

„ 116. A pair of 18-inch globes.

„ 117, „ 118. Two old sun-dials.

No. 119. Specimens of diffraction gratings, by Prof. W. A. Rogers.
„ 120. A 6-prism spectroscope, by Browning.
„ 121. Spitta's improved maximum and minimum thermometer.
„ 122. A 6-inch speculum, with flat; the speculum said to be by Sir W. Herschel, and re-figured by Sir J. Herschel.
„ 123. A 6-inch refracting telescope, by Grubb, with 3 eyepieces.
„ 124. Position micrometer, by Cooke.
„ 125. A 6-inch refracting telescope, by Simms, with eyepieces and solar diagonal.
„ 126. $3\frac{1}{2}$-in. portable refracting telescope, by Tulley, with tripod stand.
„ 127. Globe representing the visible surface of the Moon, by John Russell, R.A. (1797).
„ 128. Bichromate battery and Ruhmkorff coil.
„ 129. Slater's improved armillary sphere, presented by Prof. Slater.

The following instruments are lent, during the pleasure of the Council, to the undermentioned persons :—

No. 4. The *Beaufoy* transit instrument, to the Observatory, Kingston, Canada.
„ 10. Variation transit, to Mr. Maxwell Hall.
„ 16. The *Wollaston* telescope, to Mr. R. Inwards.
„ 22. The *Matthew* equatoreal, to Mr. J. Brett.
„ 23. The *Matthew* transit, to Captain W. Noble.
„ 28. (2) 6-inch theodolite and stand, to Dr. A. A. Common.
„ 29. (3) Wire micrometer (No. 1), to Mr. C. Thwaites.
„ „ „ Wire micrometer (No. 2), to Mr. Maxwell Hall.
„ 30. (4) $3\frac{1}{4}$-inch equatoreal and stand, to Mr. E. B. Powell.
„ „ „ Double-image micrometer, to Mr. Maxwell Hall.
„ 31. (5) $2\frac{3}{4}$-inch telescope and stand, to Mr. F. J. Wardale.
„ 34. (8) Transit instrument and stand, to Professor C. Pritchard.
„ 38. (12) 18-inch *Borda* repeating circle, to Mr. Maxwell Hall.
„ 39. (13) 8-inch repeating circle, to Mr. J. Norman Lockyer.
„ 42. (16) Artificial horizon, roof, and mercury bottle, to Mr. C. Thwaites.
„ 50. (24) Prismatic compass, to Mr. Maxwell Hall.
„ 52. (26) Dipping needle, to Mr. Maxwell Hall.
„ 54. (28) Magnetic intensity needle, to Mr. Maxwell Hall.
„ 69. (43) Telescope, with rock-crystal object-glass, to Dr. W. Huggins.
„ 74. Registering spectroscope, to Mr. John Mitchell.
„ 78. $9\frac{1}{4}$-inch reflector and stand, to Mr. Maxwell Hall.

No. 79. Spectroscope, to Mr. Maxwell Hall.
„ 92. $2\frac{1}{2}$-inch navy telescope, to Mr. M. D. Severn.
„ 99. 12-inch portable transit instrument, to Mr. H. T. Vivian.
„ 120. 6-prism spectroscope, by Browning, to Mr. C. Thwaites.
„ 123. 6-inch refractor, by Grubb, with three eyepieces, to Mr. W. E. Wilson.
„ 124. Position micrometer, by Cooke, to the Rev. A. Freeman.
„ 125. One dark wedge, to the Rev. A. Freeman.
„ 126. $3\frac{1}{2}$-inch portable refractor, by Tulley, to Mr. H. Sadler.

The Gold Medal.

The Council have awarded the Society's Gold Medal to Professor H. C. Vogel for his Spectroscopic and other Astronomical Observations.

Publications of the Society.

Volume L. of the *Memoirs* has been published during the past year; it contains the following papers:—

"Fifth Catalogue of Micrometrical Measures of Double Stars made at the Temple Observatory, Rugby." By G. M. Seabroke, A. P. Smith, and H. P. Highton.

"Observations of the Spectra of Sun-spots in the Region B—D made at the Stonyhurst College Observatory." By the Rev. A. L. Cortie.

"Measures of Double Stars made at Sydney Observatory in the years 1882–89." Communicated by H. C. Russell.

"Double-star Observations, 1888–91." By W. H. Maw.

"On the Construction of a Five-foot Equatorial Reflecting Telescope." By A. A. Common.

The attention of foreign and American astronomers is requested to the following paragraph in the Report of the Council for 1879. It is against the rules of the Society to print any paper previously published:—

"The Council hope that the communication between English and foreign astronomers will continue to increase, but they take this opportunity of mentioning that some of the papers which have been received by the Society have not been printed on account of their having been previously published abroad."